

Advance Announcement of Transmission Rate Adjustment

As you are aware, the Federal Energy Regulatory Commission's (FERC) Order No. 888 is changing the electric utility industry. The Department of Energy (DOE) has resolved that Federal Power Marketing Agencies under its jurisdiction will comply with the spirit and intent of FERC Order No. 888. Western Area Power Administration (Western) is looking at options to meet these criteria. Western is initiating a public process to establish a long-term open access transmission rate. Western is seeking your comments on items that need to be discussed as a part of the public process. This announcement provides a short history, outlines some alternatives, and discusses some issues surrounding those alternatives.

Background: The following is a summary of the history of transmission service in the Pick-Sloan Missouri Basin Program, Eastern Division (P-SED). Prior to 1959 the Bureau of Reclamation (Reclamation) provided the total power supply needs to preference customers in the P-SED Marketing Area. Reclamation constructed a federal transmission system to supply power to those preference customers. In 1959, Reclamation notified the preference customers that it could no longer meet the total projected power needs past the year 1964 and urged these entities to make their own arrangements for supplemental power supply. Reclamation and certain supplemental power suppliers agreed to construct future transmission facilities within the region using a single system, joint planning concept.

In 1963, the Joint Transmission System (JTS) was created when Reclamation and Basin Electric Power Cooperative (Basin Electric) entered into the Missouri Basin Systems Group (MBSG) Pooling Agreement (Agreement). In 1977, Western was established and assumed the responsibility for Reclamation owned federal transmission system and existing contracts. Heartland Consumers Power District (Heartland) and Missouri Basin Municipal Power Agency (MBMPA) organized in the mid-1970's and subsequently signed the MBSG Agreement. Basin Electric, Heartland, and MBMPA all supply supplemental power to certain preference customers and are commonly referred to as supplemental power suppliers. The MBSG Agreement provided for joint planning and operation of some, but not all, of the transmission facilities for the participants. Since then, the supplemental power suppliers have augmented the existing federal transmission system, using a single system, joint planning concept, rather than build separate transmission systems themselves. Specific JTS rights and obligations are detailed in bilateral agreements between Western and the participants. The JTS does not provide open access to transmission, and therefore, by itself, is not a viable option to meet FERC Order No. 888 requirements.

The MBSG Agreement also provides a mechanism for sharing the cost of the transmission facilities that considers the participants' ownership of the transmission facilities that comprise the JTS. The JTS cost-sharing method is based upon the concept that the original facilities were capable of delivering the Federal generation to load plus approximately 200 MW, per studies performed in the 1963 time frame. Basin Electric's Leland Olds No. 1 generator was the first generation added and was 210 MW. The next generation addition did not occur until after 1969. Studies for each increment of generation, thereafter, demonstrated a need for transmission additions. Western had sufficient capacity in its original system to serve its own load, and since neither its generation nor its load was increasing, did not need the additional facilities to deliver to its loads. Therefore, it was agreed Western would not share in the cost of additional facilities provided by others. However, Western would share in the revenues generated by the added capacity of the system to the extent Western provided facilities and incurred investment costs after 1969. The post-1969 additions are the basis for the cost-sharing ratios.

Costs for the JTS are summed for Western, Basin Electric, Heartland, and MBMPA to arrive at a total transmission system cost. The total transmission system cost for the year is divided by the generation input for the year (4,127,000 kW for 1997) to determine the JTS cost per kW-year of generation input. The JTS participants, except Western, then pay into the JTS according to their generation input. These JTS revenues are then distributed back to the participants (including Western) based upon the ratio of costs associated with contributed facilities constructed since 1969.

Section A: Transmission System Options

The JTS does not provide a method to share costs with non-JTS participants, and therefore, by itself, is not a viable option to meet Order No. 888 requirements. The current JTS agreements with Basin Electric and Heartland were signed in 1995 and expire in 2039. The JTS Agreement with MBMPA was signed in 1977 and expires December 31, 1997. The JTS could continue provided some method for sharing costs and a transmission rate for others is adopted. Any of the options for transmission discussed below could be used individually or in conjunction with the JTS arrangement.

To date, informal discussions with customers have identified four basic options for setting transmission rates. These options essentially are variations in how the electrical systems in the region are combined and the associated rate calculations. The presentation of these options is intended to generate discussion, and any variations on these methods or alternate methods are sought. The options discussed below are arranged in alphabetical order.

1. East vs. West

Western P-SED transmission facilities, Basin Electric and Heartland transmission, and possibly the facilities of others in the region are split into a West Side and an East Side with separate rates for each, and a separate rate for the Miles City AC/DC/AC converter station (Miles City Tie). Thus, to traverse the entire combined transmission system of Western P-SED, Basin Electric, Heartland, and possibly others, rates for East Side facilities, Miles City Tie facilities, and West Side facilities would be applied in a pancaked or cumulative fashion,

2. Independent Grid Operators

Integrated System Operators (ISO), Independent Grid Operators, and similar systems are starting to form. MAPP is working to form an ISO whose area could encompass the eastern portion of the P-SED. Utilities in the western portion of the United States are considering the formation of an ISO. This ISO in the west is identified as IndeGO, and could include the western portion of P-SED facilities. Western may sign on with such a group to administer the transmission access and usage pricing rules. Secondary issues are that MAPP and IndeGO formation may not occur coincidentally, and that Western may have to file a rate to participate in either.

3. Integrated System Rate

Western, Basin Electric, Heartland, and possibly the facilities of others could be combined as an integrated system (IS) and transmission rates calculated using a FERC approved rate design. Western, Basin Electric, and Heartland have developed short-term contracts and rates that provide for service over their combined systems. These parties have implemented the IS concept to use until a long-term solution is approved through the public process.

The IS presently consists of transmission facilities owned by Western, Basin Electric, and Heartland that are east of the east-west electrical separation in the United States, the transmission facilities owned by Western that are located west of the east-west electrical separation, and the Miles City Tie owned by Western and Basin Electric. The IS differs from the JTS in that it does not include the transmission facilities owned by the joint owners of the Laramie River Generating Station, which require the agreement of all participants prior to inclusion. Basin Electric and Heartland do not constitute all the participants in the Laramie River Generating Station. The IS also includes the 345-kV transmission line between the Antelope Valley and Leland Olds generating stations; a 230-kV line between Tioga, North Dakota, and Boundary Dam; the Miles City Tie, which provides for the transmission of electricity between the east-west electrical separation of the United States;

and certain other transmission facilities that form part of the integrated transmission system owned by Western, Basin Electric, and Heartland, none of which are included in the JTS. The total annual costs of the IS are divided by the annual average monthly network peak (2,306,000 kW) to determine the network transmission rate. The divisor for the firm point-to-point rate design is the peak firm transmission system obligation (3,519,000 kW). The non-firm point-to-point rate is calculated by dividing the firm point-to-point rate by the average number of hours in a month (730). Western currently has approval for a short-term rate for transmission service over the IS. This rate expires December 19, 1997.

4. Separate Rates

The transmission system is separated by ownership in this option. The result is a federal only transmission system rate with separate rates for transmission facilities owned by others. A transaction requiring the use of more than one entity's system would be assessed additive rates. Western's transactions utilizing other's transmission systems would be assessed additive rates for the systems used to transmit power.

Section B: Other Transmission Issues

1. Western has a public process, for review and approval of its long-term power and transmission rates as established by DOE policy, Federal law and regulation. This is not the case for the other non-federal utilities participating with Western in a combined transmission system rate. Should a rate option be selected utilizing data, from these non-Federal utilities, please comment on how a review of the non-Federal annual costs could be accomplished.
2. Tariff and compliance reviews may also become issues. Western is a MAPP member along with the other possible participants, and as such, each entity must comply with the MAPP Restated Agreement and file a tariff or joint tariff that complies with the MAPP Regional Transmission Committee.
3. Western has been approached about discounted transmission rates especially in regards to nonfirm point-to-point service. An "up to" rate may facilitate more complete utilization of the transmission system. In an "up to" rate, Western could offer discounted rates on unconstrained paths or during periods of underutilization of the transmission system.
4. Western plans to provide the standard six ancillary services as described in FERC Order No. 888.

Section C: Revenue/Cost-Sharing Options

Should a combined system rate be chosen, it raises the issue of how to divide revenue between the owners. To date, informal discussions with customers have identified three basic options for revenue/cost-sharing if a combined system is selected. The presentation of these options is intended to generate discussion, and any variations on these methods or alternate methods are sought. The options discussed below are arranged in alphabetical order.

1. Primergy Model

This is a method of distributing revenues based on the ratio of annual costs and crediting each participant's use of the facilities. The Primergy Cost Model was developed by Northern States Power Company and Wisconsin Electric Power Company. Each participant's load usage at coincident peaks (A) is divided by the total load usage at coincident peaks (sum A) to decide the load usage factor at coincident peak (B) for each involved entity. Each involved entity's annual transmission costs (C) are divided by the total annual transmission costs (sum C) of the entities to calculate the facilities factor (D). Each entity's own point-to-point usage of the system is considered first and the reserved capacity is multiplied by the point-to-point rate to calculate the actual point-to-point use (E). The total actual point-to-point use of the involved entities (sum E) is multiplied by each individual entity's facilities factor (D) to determine the point-to-point revenue credit (F) for each individual entity. The network service charge (G) for each involved entity is calculated by multiplying the load usage factor (A) by the sum of the individual entity's annual transmission cost (C) less the point-to-point revenue credit (F). Each individual involved entity's facilities factor (D) multiplied by the total network service charge for all involved entities (sum G) is the facility credit (H). The net tariff payment (I) for each individual entity is the sum of the entity's actual point-to-point use (E) plus the network service charge (G) less the point-to-point revenue credit (F) less the facility credit (H). Western's billing may have to be done on an "after the fact" basis due to equipment constraints. Data and information may not be available in real time.

2. Value Revenue Sharing

The revenues could be shared by prorating revenues based on the value of facilities each party has contributed to the system. One way to determine value is by megawatt miles. The megawatt miles for each line voltage is determined by multiplying the number of line miles at that voltage by the surge impedance for that voltage. The megawatt miles for each system line voltage are totaled. The revenues are then shared according to the percentage of the total megawatt miles contributed by each party.

3. Western Pays for Non-firm Transmission

Another option would be for Western to use its own facilities for Network Service to its native loads. In this scenario, 'Western does not make additional payment for the network use of its system combined with others' facilities. Network service for loads above Western's load would include Basin Electric and Heartland facilities, and Western would pay a combined system rate for delivery of its non-firm power sales, Western's billing may have to be done on an "after the fact" basis due to equipment constraints, Data and information may not be available in real time.

Section D: Make Whole Agreement

Using a rate design other than the JTS cost-sharing arrangement could shift revenues/costs among parties. To mitigate the revenue/cost shifting, a make whole agreement could be employed. A make whole agreement would be implemented to reduce cost shifting in the near term and prevent a net economic benefit resulting from a change in calculation, based on existing usages of the transmission system. Essentially, the make whole cost-sharing agreement would keep each JTS party participating in the new rate design "whole." As each JTS participant's current JTS net payment covers both transmission and ancillary services, the make whole cost-sharing arrangement would consider the net impact of both transmission and ancillary service costs. There would not be an immediate net impact in that all JTS participants in the new rate design would pay or be credited the same amount for transmission as they are presently. The make whole agreement would be phased out over time so that the impacts of any revenue/cost-sharing arrangement are applied gradually.

The Process: With this notice, Western is soliciting written comments on the options presented and any additional proposals to consider for transmission rate design. In your response, please identify the option or section you are commenting on. Please identify any additional items you believe Western should address during the public process. Western is requesting response by May 2, 1997. Mail your response to the address identified below. Western will then consider the written comments as it formulates its proposal. The proposed transmission and ancillary service rates will then be published in the Federal Register and Western will solicit comments on that proposal. Western will conduct environmental evaluations of the proposed rates, develop the appropriate level of environmental documentation, and include results in the Federal Register publication. The public comment period on the proposed transmission and ancillary service rates will open with the publication of a Federal Register Notice (FRN) in the second quarter of 1997. Public information forums will be held in Billings, Montana and Sioux Falls, South Dakota. Dates for these forums will be contained in the FRN.

DATES: The consultation and comment period on this Advance Announcement of the Transmission Rate Adjustment will end May 2, 1997. The public process forums will be scheduled and announced by a Federal Register Notice, along with Western's proposed Transmission and Ancillary Service rates.

ADDRESSES: Written comments are to be sent to: Gerald C. Wegner, Regional Manager, Upper Great Plains Region, Western Area Power Administration, P.O. Box 35800, Billings, MT 59107-5800.

FOR FURTHER INFORMATION CONTACT: Robert Riehl, Rates Manager, Upper Great Plains Region, Western Area Power Administration, P.O. Box 35800, Billings, MT 59107-5800, (406) 247-7388.

SUPPLEMENTARY INFORMATION: Power and transmission rates for the P-SED are established pursuant to the Department of Energy Organization Act (42 U.S.C. § 7101) and the Reclamation Act of 1902 (43 U.S.C. § 371), as amended and supplemented by subsequent enactments, particularly section 9(c) of the Reclamation Project Act of 1939 (43 U.S.C. § 485h(c)) and section 5 of the Flood Control Act of 1944 (16 U.S.C. § 825s) and Acts amendatory or supplementary thereof.

By Amendment No. 3 to Delegation Order No. 0204-108, published November 10, 1993 (158 FR 59716), the Secretary of Energy delegated (1) the authority to develop long-term power and transmission rates on a nonexclusive basis to the Administrator of Western; (2) the authority to confirm, approve, and place such rates into effect on an interim basis to the Deputy Secretary; and (3) the authority to confirm, approve, and place into effect on a final basis, to remand, or to disapprove such rates to FERC. Existing DOE procedures for public participation in power rate adjustments are found at 10 C.F.R. § 903 (1995).

Availability of Information: All brochures, studies, comments, letters, memoranda, or other documents made or kept by Western for developing the Proposed Rates, are and will be made available for inspection and copying at the Upper Great Plains Regional Office, located at 2900 4th Avenue North, Billings, MT 59107-5800.